

AMENDMENTS TO THE SPECIFICATION

On page 8, please delete the third full paragraph and replace it with the following amended one:

As shown in Figure 4, the coil wire 15 is wound onto the drum portion 17 by rotating the bobbin 16 while paying the coil wire 15 out through the nozzle 23. Here, the nozzle 23 is moved in the axial direction of the bobbin 16 as a first layer of the coil wire 15 is wound onto the drum portion 17. The coil wire 15 in this first layer, as shown in Figure 5, extends outward from the groove 2322 onto the drum portion 17, then makes approximately one turn around the drum portion 17 while contacting the inner peripheral wall surface of the first flange portion 18, is then shifted toward the second flange portion 19 by one diameter of the coil wire 15 and makes approximately one turn around the drum portion 17 while contacting the first turn of the coil wire 15, making a total of seven turns around the drum portion 17 in a similar manner. Here, a gap S is formed between the seventh turn of the coil wire 15 in the first layer and the inner peripheral wall surface of the second flange portion 19.

Please delete the paragraph bridging pages 8 and 9, and replace it with the following one:

Next, a second layer of the coil wire 15 is wound on top of the coil wire 15 in the first layer. First, the coil wire 15, as shown in Figure 6, is raised onto the seventh turn of the coil wire 15, and makes approximately one turn in contact with the inner peripheral wall surface of the second flange portion 19. Then, as shown in Figure 7, the coil wire 15 is shifted toward the first flange portion 18 by one diameter of the coil wire 15 and makes approximately one turn around the drum

portion 17 while contacting the first turn in the ~~first~~second layer of the coil wire 15 and contacting the sixth turn and the seventh turn in the first layer of the coil wire 15, making a total of seven turns around the drum portion 17 in a similar manner.

Please delete the paragraph bridging pages 10 and 11, and replace it with the following amended one:

Thus, because the coil field A of the rotor coil 11 is constructed so as to make the columns in each of the layers equal in number, and in the odd numbered layers, the coil wire 15 contacts the inner peripheral wall surface of the first flange portion 18, has a gap S relative to the inner peripheral wall surface of the second flange portion 19, and is arranged in seven columns at an array pitch $P (= D)$ from the first flange ~~side~~portion 18 toward the second flange portion 19 so as to be in contact with each other, and in the ~~odd~~even numbered layers, the coil wire 15 contacts the inner peripheral wall surface of the second flange portion 19, has a gap S relative to the inner peripheral wall surface of the first flange portion 18, and is arranged in seven columns at an array pitch $P (= D)$ from the second flange ~~side~~portion 19 toward the first flange portion 18 so as to be in contact with each other, the outside diameter of the coil field A does not become uneven relative to the axial direction of the bobbin 16. As a result, when the rotor 10 is prepared with the rotor coil 11 mounted to the pole core 12, the occurrence of damage to the electrically-insulating coating of the coil wire 15 resulting from the coil wire 15 positioned at the outermost radial portions of the coil field A coming into contact with inner circumferential wall surfaces of the claw-shaped magnetic poles 13 can be suppressed, enabling electrical insulation to be improved. Furthermore, deterioration in the balance of the load acting on the coil wire 15 can also be suppressed, preventing the coil field A from collapsing after completion of winding, etc.

Please delete the first full paragraph on page 14, and replace it with the following amended one:

In Figure 10, a winding construction is shown in which each of the layers of the coil field A is constructed such that the coil wire 15 is arranged in seven columns at an array pitch $P (= D)$ and the gap S between the seventh turn of the coil wire 15 and the first flange portion 18 (or the second flange portion 19) is less than $D/2$ ($S < D/4$). In this winding construction, because the gap S is less than $D/4$, the coil wire 15 in each of the layers contacts the coil wire 15 in the lower layer in a vicinity of apex portions. As a result, the number of layers in the coil field A is reduced, and the number of winds of coil wire 15 decreases, reducing the magnetomotive force generated by the rotor coil 11. Furthermore, the coil wire 15 can be moved over the coil wire 15 in the lower layers with a small force, increasing the danger of the occurrence of winding disturbances partway through the process of winding the coil wire 15, and also increasing the danger of the occurrence of collapse of the coil field A. In addition, because the coil wire 15 in the intermediate turns of the intermediate layers contacts only four adjacent turns of coil wire 15 in a circumferential direction, heat generated in the coil wire 15 when the rotor coil 11 is energized is less likely to be diffused through the adjacent turns of coil wire 15 to the surrounding area, thereby degrading the heat dissipation characteristics of the rotor coil 11 and giving rise temperature increases in the rotor coil 11.

Please delete the second full paragraph on page 18, and replace it with the following amended one:

First, the coil wire 15 extends outward from the groove ~~23~~22 onto the drum portion 17A, is then led inside the first guiding groove 25, and makes approximately one turn around the drum portion 17A while contacting the inner peripheral wall

surface of the first flange portion 18. Next, the coil wire 15 is shifted toward the second flange portion 19 by $(D + G)$ in the region where the ridge portions 25a are not formed, is led inside the second guiding groove 25, and makes approximately one turn around the drum portion 17. The coil wire 15 makes a total of six turns around the drum portion 17A in a similar manner. Here, the coil wire 15 is arranged at an array pitch $P (= D + G)$, and a gap $S (= (D + G)/2)$ is formed between the sixth turn of the coil wire 15 and the inner peripheral wall surface of the second flange portion 19.

Please delete the third full paragraph on page 18, and replace it with the following amended one:

Next, a second layer of the coil wire 15 is wound on the coil wire 15 in the first layer. First, the coil wire 15 is raised onto the sixth turn of the coil wire 15 in the first layer, and makes approximately one turn in contact with the inner peripheral wall surface of the second flange portion 19. Then, the coil wire 15 is shifted toward the first flange portion 18 by $(D + G)$ and makes approximately one turn around the drum portion 17A while contacting the sixth turn and the fifth turn ~~the first turn~~ of the coil wire 15 in the first layer, making a total of six turns around the drum portion 17A in a similar manner. Here, the coil wire 15 is arranged at an array pitch $P (= D + G)$, and a gap $S (= (D + G)/2)$ is formed between the sixth turn of the coil wire 15 and the inner peripheral wall surface of the first flange portion 18.

Please delete the second full paragraph on page 20, and replace it with the following amended one:

Moreover, it goes without saying that guiding grooves ~~25a~~25 according to Embodiment 3 may also be applied to the rotors of Embodiments 1 and 2 above. In that case, the array pitch of the guiding grooves ~~25a~~25 is D .